



cen
UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/085,480	02/26/2002	Gebran J. Sabongi	7780.788US01	4892
32692	7590	11/10/2003	EXAMINER	
3M INNOVATIVE PROPERTIES COMPANY			DAO, MINH D	
PO BOX 33427			ART UNIT	
ST. PAUL, MN 55133-3427			PAPER NUMBER	
2682				
DATE MAILED: 11/10/2003				

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)
	10/085,480	SABONGI ET AL.
	Examiner	Art Unit
	MINH D DAO	2682

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) Responsive to communication(s) filed on _____.
- 2a) This action is FINAL. 2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) Claim(s) 1-34 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) Claim(s) 19-34 is/are allowed.
- 6) Claim(s) 1-7 and 9-11 is/are rejected.
- 7) Claim(s) 8,12 and 13 is/are objected to.
- 8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on _____ is/are: a) accepted or b) objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) The proposed drawing correction filed on _____ is: a) approved b) disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) All b) Some * c) None of:
 1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. _____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
 - a) The translation of the foreign language provisional application has been received.
- 15) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)	4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____
2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)	5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)
3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) <u>4-5</u> .	6) <input type="checkbox"/> Other: _____

Detailed Actions

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

1. Claims 1,2,3,4,5,9, are rejected under 35 U.S.C. 102(b) as being anticipated by Tamai (US Patent 5,710,979).

Regarding claim1, Tamai teaches a method of identifying nonfunctional two-way (Col. 4, lines 66-67; Col. 5, lines 1-2) radios from among a known group of two-way radios expected to be operating within a region (See Figs 1 and 2; in this case, the region as claimed read on the communication network in reference Tamai), the method comprising: for each of the two-way radios expected to be operating within the region, establishing a corresponding window of time (Col. 4, lines 56-67; in this case, the window of time as claimed read on the response interval of reference Tamai); for each of the established windows of time, awaiting a transmission from the corresponding radio (Col. 4, lines 56-67); if, for

a particular radio, no transmission is detected within its corresponding window of time, recording the absence of the transmission (Col. 6, lines 52-58; item M; Col. 4, lines 51-54); and if, for a particular radio, the number of times absence of transmission has been recorded exceeds a threshold, identifying the particular radio as nonfunctional (Col. 4, lines 55-59).

Regarding claim 2, Tamai teaches The method of claim 1, wherein the step of establishing a time window corresponding to each radio comprises: for each of the two-way radios expected to be operating in the region, assigning a corresponding unique delay period (Col. 4, lines 66-67; Col. 5, lines 1-2; Col. 12, lines 61-67; Col. 13, lines 1-5; in this case the unique delay period as claimed read on the "cycle" of reference Tamai); broadcasting a query signal (Col. 4, lines 57-67); following the broadcast of the query signal, for each of the two-way radios, commencing the window of time corresponding to a particular radio (Col. 5, lines 14-21), after waiting for the unique delay period assigned to the particular radio to elapse; and for each of the two-way radios, closing, its corresponding window of time, after waiting for a pre-defined period to elapse (Col. 5, lines 22-25).

Regarding claim 3, Tamai teaches the method of claim 1 wherein the step of establishing a time window corresponding to each radio comprises: transmitting a query signal containing a code identifying a particular radio (Col. 12, lines 61-67); commencing the window of time corresponding to the particular

Art Unit: 2682

radio, upon transmission of the query signal; and closing the window of time corresponding to the particular radio (Col. 5, lines 14-21), after waiting for a pre-defined period of time to elapse (Col. 5, lines 22-25).

Regarding claim 4, Tamai teaches the method of claim 1 wherein the step of establishing a time window corresponding to each radio comprises: opening a window of time corresponding to all of the radios (Col. 5, lines 14-21); waiting for a predefined period to elapse; and closing the window of time (Col. 5, lines 22-25).

Regarding claim 5, Tamai teaches the method of claim 1 wherein the step of awaiting a transmission from a radio corresponding, to a window of time comprises: receiving transmissions on a carrier frequency assigned to the radio corresponding to the window of time Col. 4, lines 56-67, Col. 5, lines 1-2); and inspecting the received transmissions for presence of an identification code (Col. 4, lines 57-66) corresponding to the radio corresponding to the window of time.

Regarding claim 9, Tamai teaches that the method of claim 1 further comprising: upon identifying a particular radio as nonfunctional, issuing an alert (Col. 5, lines 22-25).

2. Claims are 14,15,16,17 are rejected under 35 U.S.C. 102(e) as being anticipated by Bamburak (US 2002/0137466 A1).

Regarding claim 14, Bamburak teaches a two-way radio (See Fig. 3, item 10) so as to render its operability observable, the two-way radio comprising: an antenna for receiving and broadcasting transmissions (Fig. 3, item 14); a transceiver unit coupled to the antenna for modulating a carrier signal with a signal to be transmitted and for recovering a baseband signal from a received transmission Fig. 3, item 12); a microprocessor (Fig. 3, item 14; Section [0022], lines 5-7) coupled to the transceiver unit, the microprocessor programmed to command a broadcast of a transmission containing a code identifying the radio (Section [0006], lines 6-11), at a designated point in time (Section [0023], lines 1-3; Section [0024], lines 30-36); and wherein, prior to the broadcast of the transmission containing the identification code, a transmission protocol governing subsequent transmissions is known by the radio (Section [0025], lines 1-18).

Regarding claim 15, Bamburak teaches the two-way radio of claim 14 wherein the designated point in time for transmission of the identification code occurs in a power-up sequence of the radio (Section [0023], lines 1-3; Section [0024], lines 30-36).

Regarding claim 16, Bamburak teaches the two-way radio of claim 14 wherein the designated point in time for transmission of the identification code occurs

after a period of delay following a broadcast of a query signal (Section [0023], lines 5-11).

Regarding claim 17, Bamburak teaches the two-way radio of claim 14 wherein the designated point in time for transmission of the identification code occurs following a broadcast of a query signal containing the code identifying the radio (Section [0023], lines 1-3, Section [0024], lines 30-36).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35

Art Unit: 2682

U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35

U.S.C. 103(a).

3. Claims 10,11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tamai (US Patent 5,710,979) in view of Gabrielle (US Patent 5,673,036).

Regarding claim 10, Tamai teaches all limitations of claim 9 above but fails to teach that issuing an alert comprises presenting a message on a display screen. Gabrielle teaches that issuing an alert comprises presenting a message on a display screen (See Fig. 1, item 108; Col. 2, lines 60-64). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to provide the teaching Gabrielle to Tamai for the benefit of experiencing the convenience of having the message displayed on the screen.

Regarding claim 11, Tamai teaches all limitations of claim 1 above but fails to teach that upon identifying a particular radio as nonfunctional, contacting a repair service; and identifying the nonfunctional radio to the repair service. Gabrielle teaches that upon identifying a particular radio as nonfunctional, contacting a repair service; and identifying the nonfunctional radio to the repair service (Col. 5, lines 1-15). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to provide the teaching Gabrielle to Tamai in order to be able to notify a device service provider to request for service.

4. Claim 18 is rejected under 35 U.S.C. 103(a) as being unpatentable over Bamburak (US 2002/0137466 A1).

Regarding claim 18, Bamburak teaches all limitations as claimed in claim 14 but fails to disclose that the transceiver unit transmits upon a first carrier frequency and receives signals modulated upon a second carrier frequency. However, Examiner takes Official Notice that the transceiver unit transmits upon a first carrier frequency and receives signals modulated upon a second carrier frequency. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to modify Bamburak as claimed so that it would transmit and receive on different frequencies to prevent internal interference.

5. Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Tamai (US Patent 5,710,979) in view of Braun et al. (US Patent 6,512,832).

Regarding claim 6, Tamai teaches all limitations as claimed in claim 5 but fails to teach that the identification code is a sinusoid of a pre-defined frequency. Braun discloses a sinusoidal identification code of a pre-defined frequency (Col. 6, lines 44-48). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to provide the teaching of Braun to Tamai in order to have a simple and low cost way of identifying a transmitted signal.

6. Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Tamai (US Patent 5,710,979) in view of Gurney et al. (US 2003/0072358 A1).

Regarding claim 7, Tamai teaches all limitations as claimed in claim 5 but fails to teach that the identification code is a pre-defined binary signal. Gurney discloses a binary identification code of a pre-defined frequency (See section [0038]). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to provide the teaching of Braun to Tamai in order to have a simple and low cost way of identifying a transmitted signal.

Allowable Subject Matter

7. Claims 8, 12 and 13 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Regarding claim 8, Tamai (US Patent 5,710,979) teaches the limitations set forth in claim 1. However, Tamai fails to teach that the method of claim 1 further comprising: assigning a first frequency upon which all of the two-way radios are to receive transmissions; assigning a second frequency upon which all of the two-way radios are to broadcast transmissions; and assigning a unique identification code to each of the two-way radios.

Regarding claim 12, Tamai (US Patent 5,710,979) teaches the limitations set forth in claim 1. However, Tamai fails to teach that the method of claim 1 further comprising: during an initialization sequence for a particular radio, receiving from the particular radio, a unique identification code to be embedded in the radio's awaited transmission during its corresponding window of time; receiving a serial number identifying the particular radio; and adding the particular radio's unique identification code and serial number to a list of two-way radios expected to be operating in the region.

8. Claims 19-34 are allowed.

9. The following is an examiner's statement of reasons for allowance:

Regarding claim 19, references Tamai (US Patent 5,710,979) and Bamburak (US 2003/0137466 A1) fail to teach a wireless intercom system comprising: a first two-way radio fashioned as a headset; a second two-way radio fashioned as a headset; and a repeater unit; wherein transmissions from the first and second two-way radio occur upon a first carrier frequency; wherein the first and second two-way radios receive transmissions carried upon a second carrier frequency; wherein the repeater unit receives transmission carried upon the first carrier frequency, and broadcasts transmissions upon the second carrier frequency, thereby enabling the first and second two-way radios to communicate; wherein

Art Unit: 2682

the repeater unit establishes a first window of time corresponding to the first radio and a second window of time corresponding to the second radio; wherein, the repeater unit awaits a transmission from the first radio during the first window of time, and awaits a transmission from the second radio during the second window of time; Wherein, the repeater unit records absence of transmission from the first radio, if no transmission is received from the first radio during the first window of time; wherein, the repeater unit records absence of transmission from the second radio, if no transmission is received from the second radio during the second window of time; wherein, the repeater unit identifies the first radio as nonfunctional if the number of times absence of transmission by the first radio has been recorded exceeds a threshold; and wherein, the repeater unit identifies the second radio as nonfunctional if the number of times absence of transmission by the second radio has been recorded exceeds a threshold.

Conclusion

10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.
 - a. Brooks (US Patent 5,220,677) discloses Method And Apparatus For Establishing Communication Path With Requesting Customer Stations.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to MINH D DAO whose telephone number is 703-305-5589. The examiner can normally be reached on 8:30 AM - 5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, VIVIAN C CHIN can be reached on 703-308-6739. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-305-3900.

Minh Dao
Examiner
Art Unit 2682
October 30th, 2003 *MN*



NGUYEN T. VO
PRIMARY EXAMINER